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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/818,692	03/28/2001	Hirokazu Tanaka	ISH-001-USA-CIP	9945

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TOWNSEND & BANTA  
1225 Eye Street, N. W., Suite 500  
Washington, DC 20005

EXAMINER

WELLS, LAUREN Q

ART UNIT	PAPER NUMBER
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1617

DATE MAILED: 07/02/2002

6

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application N .

09/818,692

Applicant(s)

TANAKA ET AL.

Examiner

Lauren Q Wells

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☒ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_ 6) ☐ Other: \_\_\_\_.

### **DETAILED ACTION**

Claims 1-26 are pending.

#### ***Priority***

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on August 16, 1990. It is noted, however, that applicant has not filed a certified copy of the Japanese application as required by 35 U.S.C. 119(b). Furthermore, without a translation of the Japanese application, it would not be known whether or not the claims of the instant application, as it is a CIP of a continuation of an Application that claims priority to the Japanese application, have priority back to the date of the Japanese Application.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(i) Claims 1-26 are rejected as vague and indefinite because a material defined solely in terms of what it can do, or a property thereof or of the scientific principle that underlies that property does not particularly point out the claimed invention, as required by 35 USC 112. *Ex parte Pulvari* (POBA 1966) 157 USPQ 169.

(ii) The terms "flaky", "fine", "scaly" in claims 1-5, 10-18, 23-25 are relative terms which renders the claims indefinite. The terms "flaky", "fine", and "scaly" are not defined by the claims, the specification does not provide a standard for ascertaining their requisite degrees, and

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one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is not clear how these adjectives relate to physical parameters.

(iii) Claims 1-2, 5, and 23 are vague and indefinite, as they are confusing. Are SiO<sub>2</sub> or mixtures of SiO<sub>2</sub> with metal oxides added to the dispersion or are they formed by hydrolyzing and/or gelling the alkoxysilane and/or silicic acid solution?

(iv) The phrase "sufficient quantity" in claims 6-7, and 9 is vague and indefinite, as it is relative. Quantitatively, what is a sufficient quantity? The specification does not define this phrase and one of ordinary skill in the art would not be apprised of what quantities are being referred to.

(v) The phrase "cosmetic exhibits homogeneous light distribution characteristics as shown in Figures 6-8 and 10" in claims 18 (last 2 lines), 19-22 (lines 2), and 26 (line 2) is vague and indefinite. The second paragraph of 35 USC 112 requires that the claims particularly point out the subject matter that Applicant regards as the invention. A claim referring to the specification is improper except in rare instances. Ex parte Fressola, 27 USPQ 2d 1608 (US Pat & Trademark Bd. Pat. App. & Int. 1993).

(vi) The term "improved" in claims 23-25 (line 1) is a relative term which renders the claim indefinite. The term "improved" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

(v) The phrase "to thereby precipitate and immobilize" in claim 23 (lines 3-4) is vague and indefinite, as it is unclear. What causes the precipitation? What is precipitated? Are spherical silica a product of tetraethoxy silane?

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***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seo et al. (6,030,627) in view of Prengel et al. (5,407,746).

Seo et al. teach antimicrobial cosmetic pigments produced by forming an amorphous glass inorganic coating layer of metal oxides over the surface of inorganic cosmetic pigments and intercalating antimicrobial metals inside the lattice structure of the coating layer. Silica, talc, and mica having a diameter of 0.1-50um are disclosed as inorganic cosmetic pigments. SiO<sub>2</sub> or a mixture of SiO<sub>2</sub> with ZnO, MgO, CaO, Al<sub>2</sub>O<sub>3</sub>, Li<sub>2</sub>O, Na<sub>2</sub>O, K<sub>2</sub>O and/or Fe<sub>2</sub>O<sub>3</sub> are disclosed as comprising the coating layer. Neutralization-titration and sol-gel methods are disclosed for making the powders. Neutralization-titration involves dissolving sodium silicate in purified water, then dispersing the inorganic pigment with it, titrating with acid solution, precipitating, filtering, washing and drying. The sol-gel method involves a silane alkoxide added to a water phase with an alcohol, where to the inorganic pigment is dispersed. The solution is then gelatinized. Tetraethoxysilane is disclosed as a preferred silane alkoxide. SiO<sub>2</sub> is disclosed in composition with water. Disclosed is spherical silica. The reference lacks the average particle size of SiO<sub>2</sub> and a thickness of 1 um. See Col. 4, line 54-Col. 7, line 2; Col. 8, line 30-line 44; Col. 9, lines 1-28; Col. 10, lines 9-25; Col. 10, lines 37-56; Col. 11, lines 1-32; Col. 16, line 40-Col. 18, line 58.

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Prengel et al. disclose platelet-shaped materials comprising platelet-shaped substrates and coated thereon an amount of spherical particles for use in cosmetics. Mica and talc are disclosed as comprising the substrate. SiO<sub>2</sub> are disclosed as the spherical particles, wherein SiO<sub>2</sub> has a diameter of 0.05-1 $\mu$ m. See Col. 2, line 52-Col. 3, line 52; Col. 4, lines 4-39; Col. 4, lines 44-64; Col. 5, lines 43-Col. 6, line 67.

Though adding alkoxysilane and/or silicic acid to a dispersion containing mica or talc, wherein SiO<sub>2</sub> particles are immobilized on the surface of mica or talc is not exemplified, it would have been obvious to one of ordinary skill in the art at the time the invention was made to teach such a method because Seo et al. teach combining alkoxysilane or silicic acid with compositions comprising mica or talc, wherein the mixtures <sup>are</sup> of gelatinized or titrated and precipitated.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to teach the mica or talc as having a thickness of 1 $\mu$ m, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Prengel et al. into the invention of Seo et al. and obtain a SiO<sub>2</sub> with a diameter of .05-1 $\mu$ m because a) Prengel et al. and Seo et al. are both directed to powders for cosmetic use comprising mica or talc coated with spherical SiO<sub>2</sub>; b) Prengel et al. disclose that SiO<sub>2</sub>'s having smaller diameters are preferably employed in such inventions because they are in a monodisperse form, wherein the particle size is as uniform as possible on the mica or talc, resulting in an improved softness of the substrate powder upon application to

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the skin. Hence, combining the teachings of Prengel et al. and Seo et al. to obtain SiO<sub>2</sub> with a diameter of 0.05-1 $\mu$ m, would be within the skill of one in the art.

Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. (6,355,260) in view of Prengel et al.

Tanaka et al. disclosed white or colored pigments that are surface-coated with an inorganic compound. The inorganic compound is preferably silicon oxide. Mica and talc are disclosed as pigments for use in the invention. A method of covering the surfaces is disclosed in which a silica coating film is formed by adding a silicic acid solution in a dispersion of the pigment particles for having the silicic acid polymer deposited on the surfaces of the pigment particles. Also the method can be used in which a hydrolytic organic silicon compound, such as tetrathoxysilane, is added in a dispersion of the pigment particles so that the organic silicon compound is hydrolyzed to form a silica coating film on the surfaces of the pigment particles. Cosmetics comprising these powders are disclosed. The steps of filtration, washing and drying are disclosed. The reference lacks spherical SiO<sub>2</sub> and 1 $\mu$ m thickness of mica or talc. See Col. 3, line 25-Col. 4, line 23; Col. 5, lines 10-45; Col. 6, line 56-Col. 7, line 21; Col. 8, line 6-Col. 10, line 53.

Prengel et al. is applied as discussed above.

Though adding alkoxysilane and/or silicic acid to a dispersion containing mica or talc, wherein SiO<sub>2</sub> particles are immobilized on the surface of mica or talc is not exemplified, it would have been obvious to one of ordinary skill in the art at the time the invention was made to teach such a method because Tanaka et al. teach combining alkoxysilane or silicic acid with compositions comprising mica or talc, wherein the mixtures are hydrolyzed.

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to teach the mica or talc as having a thickness of 1  $\mu\text{m}$ , since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the  $\text{SiO}_2$  spherical particles of Prengel et al. for the  $\text{SiO}_2$  particles of Tanaka et al. because a) Prengel et al. and Tanaka et al. are both directed to powders for cosmetic use comprising mica or talc coated with  $\text{SiO}_2$ ; b) Prengel et al. disclose that their spherical  $\text{SiO}_2$ 's are in a monodisperse form, wherein the particle size is as uniform as possible on the mica or talc, resulting in an improved softness of the substrate powder upon applied to the skin. Hence, substituting one for the other would be within the skill of one in the art.

### ***Unexpected Results***

It is applicant's burden to demonstrate unexpected results over the closest prior art. See MPEP 716.02, also 716.02 (a) - (g). Furthermore, the unexpected results should be demonstrated with evidence that the differences in results are in fact unexpected and unobvious and of both statistical and practical significance. *Ex parte Gelles*, 22 USPQ2d 1318, 1319 (Bd. Pat. App. & Inter. 1992). Moreover, evidence as to any unexpected benefits must be "clear and convincing" *In re Lohr*, 137 USPQ 548 (CCPA 1963), and be of a scope reasonably commensurate with the scope of the subject matter claimed, *In re Linder*, 173 USPQ 356 (CCPA 1972).

In the instant case, the data on pages 11-27 of the specification have been considered but not found persuasive because the data merely demonstrate the effectiveness of the instant powder



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as imparting cosmetic benefit to the skin. This is seen to be an expected result based on the cited prior art.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lauren Q Wells whose telephone number is (703) 305-1878. The examiner can normally be reached on T-F (6-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minna Moezie can be reached on (703) 308-4612. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9307 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1234.

lqw  
April 25, 2002

RUSSELL TRAVERS  
PRIMARY EXAMINER  
GROUP 1200